

February 7, 2000

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Re: Public Hearing - Use of Technology in State Government

In response to your invitation to me to provide my thoughts on State technology policies and practices, I am please to provide the following statement.

It is my intention to address the two principal issues identified in your letter. These issues are: First, establishing policies and practices that insure technology investments are wisely made; technology projects are procured, staffed and administered effectively; and technology products are delivered on time, within budget, and produce the right outcomes. Second, the State needs to evolve its governance mechanisms to reflect the increasingly high-tech demands of the public by adopting e-governance strategies.

Department of Information Technology (DOIT)

In addressing the first issue, it is my understanding that the Department of Information Technology (DOIT) is responsible for the development, implementation and oversight of a set of policies that will guide the development, acquisition, implementation, and use of technology. I have seen that several policies have been published on the DOIT website under the Statewide Information Management Manual. I was involved in the review of draft policies for the project management and oversight of large-scale technology systems development projects. It is my understanding that these policies were presented as guidelines to a coordinating committee of IT representative from various State agencies but may not have been formally adopted. However, it did appear that the DOIT Project Oversight team was using the published procedures as an evaluation tool in the review of the technology projects under their purview.

A policy is a relatively high level statement of direction, that states an overall requirement, defines the organizational scope (who is effected by the policy statement), and specifies the responsibilities of the parties including who is responsible for its enforcement. A set of procedures are then issued by the responsible parties to define when the policy is to be applied, how the policy is to be implemented and provide further definition on the involved parties responsibilities. Standards may then be established

specifying certain methodologies, practices, and products to be used under specific conditions.

The DOIT was also given the responsibility to charter two advisory panels, one being an internal group of the State's IT executives call the Information Technology Coordinating Council (ITCC). I cannot speak of its effectiveness, but the concept of bringing the State's leading IT executives together to share best practices, trade information, establish high level product standards, and set a coordinated strategy, continues to hold merit and should be encouraged.

The second was a private sector advisory board that would provide comment and advice on key industry trends and practices. The California Information Technology Commission (CITC) was established. In its first incarnation it was a very passive group. While I do not advocate that such a commission would be a decision making body, it appeared to have little influence on DOIT established policies or State technology initiatives. The CITC was not asked to provide meaningful comment on the State's annual IT strategy or provide third party opinion on critical state IT projects. For a group such as this, its charter must be clearly defined and meaningful input solicited or it will not realize its potential to be an effective link between the public and private sector.

For the DOIT to be a truly effective organization it must demonstrate a positive impact on the management of IT in the State. That means demonstrating leadership in developing a meaningful State level IT strategy, establishing effective policies and providing thought leadership on projects that it has an oversight responsibility. It must be staffed with knowledgeable individuals that can gain the respect and trust of the sponsoring organizations.

It appears that DOIT has made considerable progress since the 1994 Task Force on Government Technology Policy and Procurement Report in establishing policies related to the initiation, management, and oversight of technology development projects. These policies appear to be reasonable and in keeping with standard practices in the Information Technology industry.

It does appear that there are still a significant number of areas that would benefit from definitive policy statements. These areas include: Internet standards, Information security, Business Continuity (i.e. disaster recovery), and Operations/systems management. Policies addressing these areas may be available, but are not listed on the DOIT website.

Delivery of IT Services

It appears that the State contracts with the supplier community for a large portion of its new project technology. I was encouraged to see that the State has issued a policy that mandates the use of an alternative procurement process that focuses on pre-qualification of suppliers and awards contracts based upon a determination of "best value" not "lowest evaluated cost". This policy also encourages a "business solutions" approach in lieu of

the past practice requiring the State to essentially specify the technology solution in advance of the RFP. This approach not only should speed up the project lifecycle by simplifying the process and players, but also encourages innovative solutions by the selected supplier. Implementation of these practices is a positive step as it provides the State project managers with additional flexibility in supplier selection, contract structure (i.e. potential for performance incentives/penalties) and management. It also encourages qualified suppliers to bring their best thinking forward and focus on the real business solution in their proposals, not just conforming to the specifications.

However, establishing policies and procedures is only one step in the overall process of improving the delivery of IT services. Projects must be staffed with knowledgeable, trained resources and those resources provided with the necessary tools to accomplish the task. Execution of the proscribed policies and practices remains a huge obstacle in the path of delivering IT excellence.

To improve the execution of large IT projects, the State must continue to emphasize compliance to its established policies and exercise a prudent level of oversight of significant projects. Although project oversight should not be considered as a direct substitution for good project management, it does provide an “early warning signal” of potential problem areas. Early identification of problems can serve to get a project “back on track”, which may result in a redefinition of the project solution, modification to the project schedule, or a reforecast of the budget. The key task of the project oversight team is to provide the State decision-makers with an objective assessment of project status and its potential for success (i.e. meeting the project objectives). Project oversight can also legitimately identify projects that may not be achieving their original purpose and therefore should be terminated before additional resources are committed. The State should continue to emphasize the value of this practice and mandate its use.

Development of technology systems is a high-risk business with a significant failure rate due to changing business requirements, technology, and user acceptance. This is also true for the private sector. However, most private sector companies appear to have an advantage over the State in that we have a strong Chief Technology or Information Officer (CIO) that has the authority to establish policy, practice and standards for the enterprise. The CIO generally has the ability to adjust both human and financial resources allocation to ensure that the right projects are prioritized according to the overall goals of the corporation. I think that this is still a challenge for the State. As currently structured, the DOIT has the responsibility to establish policy, but only has authority to influence execution of that policy. The DOIT has been limited in its ability to bring needed expertise to bear on problem areas and projects and must continually rely on the sponsoring department to heed its advice. Frequently the sponsoring department has too much invested (time and prestige) in the proposed solution to alter its course.

The State must also ensure that IT projects are staffed by trained, competent professionals who are motivated to see the successful conclusion of the assigned projects. To this end, professional project management training must be made available to State project

managers. Training in this area should greatly improve individual project manager skills and techniques.

The State must be able to attract and retain professional project and technology managers. The individual should be compensated based upon their expertise, contribution, and performance. Unfortunately, the State has experienced difficulty in attracting professional hires due to a relatively low salary structure (at the senior professional level) and a very tight labor market. The State historically had been able to compensate its employees fairly, but its main competitive advantages were job security and a relatively generous benefits package. With the current strength of the economy, private sector companies are either matching or exceeding the benefits packages offered by the State and the risk of long-term unemployment is minimal. Private sector companies are also attracting talent due to more advanced technology projects, again, working to the disadvantage of the State.

Accountability for the success or failure of a project must ultimately rest with the automation project managers. However, this accountability should not limit the DOIT from providing professional project oversight. I am also a proponent of having executive level steering committees perform periodic reviews of the projects that address key project objectives, schedule, budget and communication. Steering committee membership should include executive level management of both the sponsoring department, the ultimate client (such as other State or County agencies), the implementation vendor, DOIT and other involved agencies. Steering committee membership should be responsible for providing both high-level business direction as well as an escalation point for hurdles facing the project team. It should be viewed as an asset in the project management strategy, not a roadblock.

The State's IT professionals are frequently challenged to develop and deliver projects where the business requirements are not fully established or may be subject to significant revision due to the changing dynamics of the work environment. This is an area of great risk for all IT projects. Involvement of the ultimate business users of the system is a key design principal as is managing their expectations regarding delivery of the final solution.

Designing system development agreements that require the vendor to provide business solutions should help in this area by involving the solutions provider in earlier project phases and having them gain an understanding of the business objectives directly from the system users. This should improve project communication and keep the project focused on its objectives. Structuring agreements that specify key milestone or checkpoints will also provide both the oversight team and Steering committee with an excellent indication of project progress during their periodic reviews.

Outsourcing

As noted above, the State outsources a large percentage of its systems development projects. Outsourcing is a valuable strategic tool in the development and management of technology. I would like to include a brief overview of the concept of "outsourcing":

The are three basic drivers for outsourcing:

- **Technical Expertise**, where a firm can provide either a higher or more consistent, quality product than the buyer can due to a dedicated focus on the product/industry. The outsourcer can also use its industry position to attract and retain key industry expertise that may be difficult for a single consumer such as the State to do.
- **Cost Effective**; where an outside firm can provide equivalent or superior quality at a lower cost due to economies of scales, greater process efficiency, or generally lower overhead costs.
- **Highly variable workloads**, where an outside firm can be more efficient due a larger customer base, or industry and/or geographic diversification. Important to note that outsourcing may be used to supplement internally provided services at peak workloads. Outsourcing should not be considered only as an exclusive solution.

Two different approaches to Outsourcing:

1. **Performance based**, where the buyer is concerned with only the cost and quality of the product or service and allows the supplier to manage its internal business processes to achieve the stated objectives. Specific performance standards should be included so that an objective measurement can be made of the supplier's performance.
2. **Resource Based**, where the buyer contracts for a dedicated or predefined team and assumes either full or partial management responsibility for the team's performance.

I am strong advocate of Performance based outsourcing whenever outsourcing is considered. Historic experience with resource based deals have met with mixed results because the supplier is only contractual obligated to provide a resource or set of resources and the buyer assumes the responsibility for process, quality and performance. This alternative should only be used in very limited situations.

Keys to successful outsourcing deals:

- Well defined work scope
- Well defined performance standards
- Practical and effective remedies
- Well defined change management process
- Well defined cost structure (with provision for periodic adjustments)
- Active contract management
- Proactive communications between Buyer and Supplier
- Predefined exit strategy at end of contract (i.e. eliminate or mitigate the risk of a lock-in by the supplier where the buyer has no alternative, but to renew the deal at less favorable terms.

With the constraints that the State faces in being able to attract the skilled professional IT employee, I think that trend will continue for the State to look outside of its internal

organization and we will continue to see additional functions being outsourced. This trend will also require the State to diligently manage the selected contractors and hold them accountable for performance commitments. This is true in both the systems development area as well as the more traditional outsourced areas of technology operations and telecommunications.

It should be noted, that while outsourcing provides reasonable alternatives, the State should fully understand its reasons for outsourcing, structure appropriate contracts, and manage the providers.

Specifically, the State must now systematically evaluate its IT services, both internally and externally provided, and objectively move forward with selected IT outsourcing opportunities.

e-Government

A strong set of policies and practices are required to address the increasing demand for e-government initiatives. Ideally, I would propose a comprehensive set of standards be developed that would govern the creation of a State department website or provision of a government service so that a common feel can be seen by the users of the services. This appears to be true today as far as site presentation of material at the ca.gov website.

However, while the current websites and links do an excellent job of presenting information, there appears to be a lack of true internet service offerings, such as on-line auto registration. Many of the numerous technical issues centering around security (both privacy and fraud issues) and the processing of financial transactions could be addressed and common, consistent solutions developed. Not only would this approach likely speed development of e-government services, it should lead to more positive user experience. Again, the government should be able to leverage its internal knowledge base, share system solutions, and reduce the cycle time for succeeding generations of applications.

Summary

To summarize, it is my opinion that the State, through the DOIT, have made significant progress in establishing relevant policies regarding the acquisition, development, and implementation of State funded technology projects. Policies are still required in areas such as Internet, security, operations, and telecom.

Delivery of large scale IT projects is still a high-risk endeavor and I believe that we have yet to see the full beneficial impact of the policies and practices issued by DOIT. The focus on "best value" procurement methods and contracting alternatives is a positive statement. There continues to be a concern about the execution of the projects, given the challenges facing the State in retention of skilled IT personnel and shifting requirements. Improvement in reducing the cycle time for IT projects is still necessary.

Outsourcing of IT functions should be considered as a realistic alternative to internally provided service, but it is not a panacea. Outsourcing must be rigorously evaluated, reasons for outsourcing understood, and it must be diligently managed.

The State has established a good foundation in the ca.gov website and is an excellent informational resource. The challenge is to evolve the website from its current state to an interactive tool facilitating transactions with the State.

Thank you for the opportunity to participate in this process.

Sincerely,

Peter W. Meuel